

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently amended) A bale press ~~[[(1)]]~~ for ~~[[lose]]~~ loose material, especially for paper with comprising:

structure defining a filling space ~~[[(1)]]~~ for receiving the loose material that is to be added loose;

structure defining a press channel having an inlet open to the filling space;

a press ram, ~~which can be moved~~ movable through the filling space into the inlet of ~~a pressing the press channel for compressing the loose material into a bale (4) or some other baling space,~~ said press ram including channels communicative with outlet slots disposed in a front surface of the press ram; and several

knotters ~~[[(27)]]~~ for tying a knot in a tying material and for cutting the tying material after the knot, which are the knotters being disposed next to one another at the inlet ~~[[(5)]]~~ of the pressing press channel~~[[,]]~~; and

in which in each case supplying arms each being disposed for movement within a respective one of the channels in the press ram, the tying material forming a loop encircling the bale which includes two opposite strands (30, 31) of a tape loop (10) of the binding material, encircling the bale, are brought together at the front, knotted together and cut after the knot, the associated knoter receiving, a one of the

two strands ~~(31)~~ with a supplying arm (12) being received through a respective one of the outlet slots openings in the press ram and delivered to an associated one of the knotters where another of the two strands is located by operational movement of a corresponding one of the supplying arms, the two strands which are thereby brought together being knotted together and cut after the knot by the associated one of the knotters (5), wherein the openings in the press ram form channels (11), which are adapted to the movement profile of the supplying arms (12) and, at a front surface of the press ram, are open in outlet slots (14) for the tying material.

2. (Currently amended) The bale press of claim 1, wherein:

the press ram (5) ~~has~~ is driven by a driving mechanism[[,]] which is stationary [[(6)]] during [[the]] a supplying movement of the supplying [[arm]]arms; and

each of the supplying arm ~~(12)~~ arms is moved essentially in [[its]] a longitudinal direction thereof through the ~~openings (11)~~ channels of the press ram [[(5)]].

3. (Currently amended) The bale press of claim 2, wherein each of the supplying arms is moved by an arm driving mechanism, the driving mechanism [[(6)]] of the press ram [[(5)]] and [[a]] the arm driving mechanism (18), ~~moving the~~

~~supplying arm (12), are~~ being pressure medium-actuated, ~~preferably hydraulic driving mechanisms.~~

4. (Currently amended) The bale press of one of the claims 1 to 3, wherein each of the ~~[[tape]] loops in each case consists of the~~ tying material, ~~which~~ has not been knotted and is supplied from a single, one-sided supply of ~~binding tying~~ material, the free end of the ~~binding tying~~ material being held in the knotter after it is being cut.

5. (Currently amended) The bale press of one of the claims 1 to 3, wherein the ~~[[tape]] loops (10) in each case consist~~ consists of two knotted strands ~~(30, 31) of the tying material[[,]]~~ which are supplied on each of both sides from ~~in each case a tying a respective tying~~ material supply ~~(20, 21), the knotter [(27)]~~ providing the two strands with two knots ~~[(33, 35)]~~, between which the two strands are cut.

6. (Currently amended) The bale press of one of the claims 1 to 3, wherein the tying material ~~consists of~~ comprises a material without strong and long fibers, which can be dissolved when wet.

7. (Currently amended) A bale press for loose material, comprising:

means defining a filling space for receiving the loose material;

means defining a pressing channel in which the loose material is baled;

a press ram movable through said filling space to push loose material in the filling space into said pressing channel to form the loose material into a bale, said press ram including channels and outlet slots in a front surface of said press ram leading to said channels;

a plurality of knotting devices arranged at an inlet of said pressing channel ~~for tying loose material in said pressing channel to form a bale;~~

supply means for supplying a tying material to said knotting devices, each of said knotting devices being arranged to knot first and second strands of the tying material encircling the bale together and cut the first and second strands after the knot; and

supply arms each carrying a respective one of the first strands and movable in a respective one of said channels of said press ram to thereby carry the first strand from one side of the bale to an opposite side of the bale, each of said channels being formed to accommodate movement of a respective one of said supply arms therethrough.

8. (Previously presented) The bale press of claim 7, wherein said knotting devices are arranged next to one another on a common side of said pressing channel.

9. (Previously presented) The bale press of claim 7, wherein said press ram includes driving means for moving said press ram through said filling space, said driving means being arranged to be stationary during movement of said supply arms through said channels in said press ram.


10. (Previously presented) The bale press of claim 7, wherein said press ram includes a pressure medium-actuated driving mechanism for moving said press ram through said filling space.

11. (Previously presented) The bale press of claim 7, further comprising driving means for moving each of said supply arms.

12. (Previously presented) The bale press of claim 7, further comprising a pressure medium-actuated driving mechanism for moving each of said supply arms.

13. (Previously presented) The bale press of claim 7, wherein each of said supply arms includes a guide through which a respective first strand passes.

14. (Previously presented) The bale press of claim 7, wherein said knotting devices are arranged on a first side of said pressing channel and said supply arms are arranged on a second, opposite side of said pressing channel, each of said supply arms being arranged to carry the respective first strand from the first side of said pressing channel through the respective one of said channels in said press ram to said second side of said pressing channel into engagement with a respective one of the second strands.




15. (Previously presented) The bale press of claim 14, further comprising guide means arranged on said second side of said pressing channel for guiding the tying material to said knotting devices to form the second strand.

16. (Previously presented) The bale press of claim 7, wherein said knotting devices are arranged to retain free ends of the tying material after the first and second strands have been cut after formation of the knot.

17. (Previously presented) The bale press of claim 16, wherein said knotting devices are arranged to form an additional knot from the free ends of the tying material.

18. (Previously presented) The bale press of claim 7, wherein said supply means comprise rolls of water-soluble tying material.

19. (Previously presented) The bale press of claim 7, wherein said supply arms have a sickle shape.



20. (Previously presented) The bale press of claim 7, further comprising a lever connected to each of said supply arms and pivotable about an axis to thereby enable a rotational movement of said supply arm about said axis to be obtained during which said supply arm moves through the respective one of said channels in said press ram.

21. (Previously presented) The bale press of claim 20, wherein said lever has first arm extending from said axis to a first end of said lever connected to said supply arm and a second arm extending from said axis to a second end of said lever, further comprising a driving mechanism connected to said second end of said lever for pivoting said lever about said axis.

22. (Previously presented) The bale press of claim 7, wherein said outlet slots have a width substantially corresponding to a width of said supply arms.

23. (Currently amended) The bale press of claim 7, wherein ~~the tying material is a binding material and~~ said supply means comprise rolls of single-sided ~~binding~~ tying material, said knotting devices being arranged to retain free ends of said ~~binding~~ tying material after the first and second strands have been cut after formation of the knot.

24. (Previously presented) The bale press of claim 7, wherein said supply means comprise rolls of tying material arranged on each side of said pressing channel.


25. (Currently amended) A bale press for loose material, comprising:
means defining a filling space for receiving loose material;
means defining a pressing channel in which loose material is baled;
a press ram movable through said filling space to push loose material in the filling space into said pressing channel to form the loose material into a bale, said press ram including channels and outlet slots in a front surface of said press ram leading to said channels;

knotting means for forming knots in a tying material and for cutting the tying material ~~loose material in said pressing channel to form a bale~~;

supply means for supplying the tying material to said knotting means, each of said knotting means being arranged to knot first and second strands of the

tying material encircling the bale together and cut the first and second strands after the knot; and

supply arms each carrying a respective one of the first strands and movable in a respective one of said channels in said press ram to thereby carry the first strand from one side of the bale to an opposite side of the bale, each of said channels being formed to accommodate movement of a respective one of said supply arms therethrough.



26. (Previously presented) The bale press of claim 25, wherein said knotting means are arranged next to one another on a common side of said pressing channel.

27. (Previously presented) The bale press of claim 25, wherein said press ram includes driving means for moving said press ram through said filling space, said driving means being arranged to be stationary during movement of said supply arms through said channels in said press ram.

28. (Previously presented) The bale press of claim 25, further comprising driving means for moving each of said supply arms.

29. (Previously presented) The bale press of claim 25, wherein each of said supply arms includes guide means through which a respective first strand passes.

30. (Previously presented) The bale press of claim 25, wherein said knotting means are arranged on a first side of said pressing channel and said supply arms are arranged on a second, opposite side of said pressing channel, each of said supply arms being arranged to carry the respective first strand from the first side of said pressing channel through the respective one of said channels in said press ram to said second side of said pressing channel into engagement with a respective one of the second strands.

31. (Previously presented) The bale press of claim 30, further comprising guide means arranged on said second side of said pressing channel for guiding the tying material to said knotting means to form the second strand.

32. (Previously presented) The bale press of claim 25, wherein said knotting means are arranged to hold free ends of the tying material after the first and seconds strands have been cut after formation of the knot.

33. (Previously presented) The bale press of claim 32, wherein said knotting means are arranged to form an additional knot from the free ends of the tying material.

34. (Previously presented) The bale press of claim 25, wherein said supply means comprise rolls of water-soluble tying material.

35. (Previously presented) The bale press of claim 25, wherein said supply arms have a sickle shape.

36. (Previously presented) The bale press of claim 25, further comprising rotation means for imparting a rotational movement to said supply arms.

37. (Previously presented) The bale press of claim 36, wherein said rotation means comprise a lever connected to each of said supply arms and pivotable about an axis to thereby enable a rotational movement of said supply arm about said axis to be obtained during which said supply arm moves through the respective one of said channels in said press ram.

38. (Previously presented) The bale press of claim 37, wherein said lever has first arm extending from said axis to a first end of said lever connected to said

supply arm and a second arm extending from said axis to a second end of said lever, further comprising a driving mechanism connected to said second end of said lever for pivoting said lever about said axis.

39. (Previously presented) The bale press of claim 25, wherein the tying material is a binding material and said supply means comprise rolls of single-sided binding material, said knotting means being arranged to retain free ends of said binding material after the first and second strands have been cut after formation of the knot.

40. (Previously presented) The bale press of claim 25, wherein said supply means comprise rolls of tying material arranged on each side of said pressing channel.

41. (Previously presented) A method for baling loose material, comprising the steps of:

guiding a first strand of tying material through a supply arm on a first side of a bale press;

guiding a second strand of tying material along a second side of the bale press;

moving the supply arm through a channel in a press ram to bring the first strand to the second side of the bale press;

knotting the first and second strands on the second side of the bale press to form a first knot and moving the supply arm back through the channel;

placing loose material into a filling space of the bale press;

moving the press ram to force the loose material from the filling space into a pressing channel;

repeating the steps of placing the loose material in the filling space and moving the press ram until a desired compactness of the loose material in the pressing channel is obtained and then stopping movement of the press ram;

moving the supply arm through the channel in the press ram to bring the first strand to the second side of the bale press;

knotting the first and second strands on the second side of the bale press to form a second knot around a completed bale;

moving the supply arm back to the first side of the bale press;

cutting the tying material after the second knot and forming another knot; and

repeating the steps of placing loose material into the filling space, moving the press ram, moving the supply arm, knotting the first and second strands and cutting the tying material to form additional bales.

42. (Previously presented) The method of claim 41, further comprising the step of maintaining the press ram in a stationary position during movement of the supply arm through the channel in the press ram.


43. (Previously presented) The method of claim 41, further comprising the step of forming an outlet slot in a front surface of the press ram in communication with the channel in the press ram.

44. (Previously presented) The method of claim 41, further comprising the step of adapting the channel in the press ram to the movement of the supply arm such that the supply arm sweeps the channel during movement through the channel and removes loose material from the channel.

45. (New) A method for baling loose material, comprising the steps of:
providing a press ram with a channel communicative with an outlet slot disposed in a front surface of the press ram, the press ram being movable through a filling space of the bale press and into an inlet of a press channel for compressing the loose material into a bale;

forming a loop of a tying material in the press channel having first and second strands disposed respectively at opposed first and second sides of the press channel;

placing loose material into a filling space of the bale press;
driving the press ram to force the loose material from the filling space into a press channel to form the bale;
transferring the first strand located at the first side of the press channel through the channel in the press ram to the second strand on the second side of the bale press; and
knotting the first and second strands together on the second side of the press channel to form a knotted loop encircling the bale.



46. (New) The method of claim 45, wherein said step of transferring includes moving a supplying arm essentially in a longitudinal direction thereof through the channel in the press ram

47. (New) The method of claim 45, wherein the step of transferring is carried out while maintaining the press ram in a stationary position.

48. (New) The method of claim 46, wherein the supplying arm and the press ram are pressure medium-actuated.

49. (New) The method of claim 45, wherein the tying material is flexible tape.

50. (New) A bale press for loose material, comprising:

structure defining a filling space for receiving the loose material;

structure defining a press channel having an inlet open to the filling space;

a press ram movable through the filling space into the inlet of the press channel for compressing the loose material into a bale, said press ram including channels communicative with outlet slots disposed in a front surface of the press ram;

knotters for tying a knot in a tying material and for cutting the tying material after the knot, the knotters being disposed next to one another at the inlet of the press channel; and

supplying arms each being disposed for movement within a respective one of the channels in the press ram, the tying material forming a loop encircling the bale which includes two opposite strands, a one of the two strands being received through a respective one of the outlet slots in the press ram and delivered to an associated one of the knotters where another of the two strands is located by operational movement of a corresponding one of the supplying arms, the two strands which are thereby brought together being knotted together and cut after the knot by the associated one of the knotters, the supplying arms being moved essentially in a longitudinal direction thereof through the channels of the press ram, said press ram being driven by a driving mechanism which is stationary during a supplying movement of the supplying arms, each of the supplying arms being moved by an arm driving

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mechanism, the driving mechanism of the press ram and the arm driving mechanism being pressure medium-actuated.
